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ABSTRACT

This monograph in the Urban Diversity Series takes an in-depth look at the nature of academic achievement gaps and the efforts since the 1960s to close these gaps. The monograph provides a comprehensive analysis of achievement data from pre-school through higher education. It concludes with recommendations for developing evidence-based educational strategies and creating the organizational requirements necessary for implementing these strategies. The first section of this paper focuses on "Societal Efforts to Improve Educational Outcomes for Underrepresented Groups" (laying the foundations in the 1960s, factors that make closing of achievement and attainment gaps more challenging, and efforts to improve educational outcomes from the late 1960s to the present). The second section presents "Overview of the Academic Achievement Gaps (research suggests that there continue to be large achievement gaps to close in preK-16 education). The third section discusses "Promoting More Rapid Progress Over the Long Term," offering recommendations in two categories (tasks concerned with developing more evidence-based strategies and organizational requirements for pursuing these tasks). The final section discusses the amount of time that will be required to address and remedy the achievement gap It notes that efforts to address the high achievement issue and the within-class issue are not likely to emerge over the next 5-10 years as significant priorities for PreK-16 education because the low achievement of disadvantaged students remains a very pressing matter which will command an enormous amount of attention for a long time, and because few leading academic researchers, school reformers, and policymakers have shown much interest in the high achievement and within-class issues. (Contains 61 references.) (SM)

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Working More Productively To Produce Similar Patterns of Educational Performance among Racial/Ethnic Groups in the United States

Introduction

When one surveys the educational arena in the United States, the issue that is probably now of greatest concern to educators and policymakers from preschool through graduate school is the lower educational performance of African Americans, Latinos, and Native Americans when compared to non-Hispanic Whites and Asian Americans. This lower performance has both academic achievement and educational attainment dimensions. From the very start of school, Black, Hispanic, and Native American students have much lower average levels of achievement than Whites and Asians by traditional measures, such as grades, standardized test scores, and class rank; and, these achievement "gaps" persist on through graduate and professional school (National Task Force on Minority High Achievement, 1999). In fact, there is evidence that some of these gaps grow over the course of students' educational careers (Phillips, Crouse, & Ralph, 1998; Ramist, Lewis, & McCamley-Jenkins, 1993). In no small measure due to their lower levels of academic achievement, these minority groups also have lower overall average levels of educational attainment, and are heavily underrepresented among recipients of bachelor's and graduate and professional degrees (U.S. Census Bureau, 2000).

In recent years, the persistence of these achievement and attainment gaps has generated understandable impatience in many quarters with what is regarded as the slow rate of progress being made toward eliminating them. This impatience has become so great that political leaders on both the federal and state levels have enacted legislation and issued regulations that essentially mandate that the gaps be closed fairly soon. Undoubtedly, the most visible of these efforts is the No Child Left Behind Act, which was passed by the U.S. Congress in 2002. That legislation calls on states to eliminate academic achievement gaps (as measured by standardized tests) among racial/ethnic groups at the elementary and secondary levels within a dozen years, or at least make rapid, sustained progress toward doing so.

It is encouraging to see the emergence of broad interest in closing educational performance differences among racial/ethnic groups. Nonetheless, due to the short period of time during which American society has actually been engaged in substantive efforts to equalize educational opportunities among racial/ethnic groups, few "proven" strategies currently exist for accelerating the educational advancement of underrepresented groups. Moreover, because many factors influence students' educational outcomes and it takes years to design, test, and fully evaluate educational strategies (see, for example, Schoenfeld, 2002), even if we work very hard in a thoughtful, rigorous, well-structured way, it will take at least two more decades to develop a relatively robust set of empirically demonstrated strategies for producing more rapid progress at all levels of the educational system. One important risk of the current impatience is that it will reinforce the inclination to "demand change" via legislative and regulatory fiat, rather than be

supportive of efforts to take a number of organizational and other steps in the next several years that could help produce sustained growth in the number of proven strategies over the next generation and beyond.

A related risk of the overemphasis on legislative/regulatory mandates to promote change is that policymakers will retain and even expand the use of overly ambitious progress benchmarks and performance criteria. If this occurs, it could result in many schools and educators being viewed as failing their students, even when they are actually doing relatively well, given the existing knowledge base and the complex circumstances under which they are working. There also is an associated risk that large numbers of students will be penalized, because they will be unable to meet the achievement thresholds established by policymakers. Fortunately, we may be at the beginning of a period of substantial pullback from some of the most unrealistic state-government-mandated performance criteria, which would reduce the harm done to students (Brownstein, 2002; Arenson, 2003a). And, while no similar pullback at the federal level from the unrealistic progress benchmarks of the No Child Left Behind Act seems imminent, thoughtful critics are beginning to speak up (VandeHei, 2003; Arenson, 2003b).

There are two other more serious concerns about the present situation. When one looks closely, one finds that the current mix of efforts to raise educational performance levels of students from underrepresented groups remains overwhelmingly targeted to improving outcomes for low socioeconomic status (SES) students who are "at risk" of achieving at low levels in school. Far too little work is being directed at finding ways to raise the achievement levels of middle SES and high SES underrepresented minority students. Similarly, as the work of the National Task Force on Minority High Achievement indicates (College Board, 1999), more work should focus on raising achievement levels of underrepresented minority students who are average-to-well-above-average academically and those who are already high achievers. Improving outcomes for these segments of students from underrepresented groups is essential, if the overall performance gaps are to be closed.

There is growing acknowledgement among a number of educational policymakers, practitioners, and researchers that the body of proven approaches available to promote higher levels of academic achievement is still small (Borman, Hewes, Overman, & Brown, 2002; Gandara, 2001). There also is recognition that, without major changes in how new strategies are developed, tested, and evaluated and much better mechanisms for promoting widespread use of "evidence-based" strategies by educators, both the growth in the knowledge base and its use seem likely to remain slow and uneven (National Research Council, 2002; Coalition for Evidence-Based Policy, 2002). The requirement of the No Child Left Behind Act that educational practices be grounded in "scientifically-based" research has helped galvanize efforts for addressing these problems.

For many, the underlying challenge is to accelerate the evolution of education into a truly empirically grounded profession. One of the models that some turn to for insights about moving education in that direction is medicine (Carnine, 2000). In addition to benefiting from an enormous amount of basic research in the life sciences, medicine has come to

rely heavily on peer-reviewed, randomized controlled trials to test promising new drugs and new procedures, which have generated evidence-based medical advances that can be widely used with consistency and confidence (Coalition for Evidence-Based Policy, 2002).

This growing movement to undertake extensive testing of well-conceived and planned educational strategies using true control groups (when possible) seems to have the potential to be very helpful for efforts to accelerate minority educational advancement. As recent studies have shown, academic achievement gaps occur at all socioeconomic and achievement levels (Ferguson, 2002; Ogbu, 2003). Educational strategies will need, then, to be explicitly concerned with developing reliable, affordable, widely usable strategies designed to improve outcomes for underrepresented minority students in every SES segment and strengthen the entire distribution of academic achievement for them, including increasing the percentage who are high achievers.

Later in this essay, a number of suggestions are offered for pursuing work focused on closing educational performance gaps between underrepresented groups and their non-Hispanic White and Asian American counterparts. These suggestions reflect the concerns about the nature of current efforts. They also take advantage of the growing interest among educators in making the profession more evidence-based. Fully closing the gaps is likely to remain a long-term challenge, and the rate of progress is likely to be much slower than most would wish. It is conceivable, then, that an appreciable convergence in the distributions of academic achievement among racial/ethnic groups and full convergence of the distributions could take decades. This essay explores the means of reaching this convergence and emphasizes the development of mechanisms required to produce, and make widespread use of, a steady stream of evidence-based strategies on an ongoing basis.

The first section of this essay presents perspectives on the recentness, key characteristics, and general results to date of efforts to improve educational outcomes for African Americans, Latinos, and Native Americans. Following that discussion, a summary of selected achievement data from preschool through higher education, which describe the current large size of the achievement gaps, is presented. The paper ends with recommendations for steps that could contribute to more rapid progress toward closing the gaps among groups.

Societal Efforts To Improve Educational Outcomes for Underrepresented Groups
Laying the Foundations in the 1960s

It has been just a half-century since the Supreme Court ruled that racially segregated elementary and secondary schools were unconstitutional (*Brown v. Board of Education*, 1954). Possibly more important, it has been only four decades since the U.S. Congress passed legislation that led the federal government to begin to pay attention to whether there was equal educational opportunity among racial/ethnic groups. It did so in the Civil Rights Act of 1964, by requiring the U.S. Commissioner of Education to conduct a national survey "concerning the lack of availability of equal educational opportunities for individuals by reason of race, color, religion or national origin in public educational institutions at all levels in the United States, its territories and possessions, and the District of Columbia" (Coleman et al., 1966).

Indeed, it was not until the mid-to-late 1960s that the federal government began to lay the legislative and programmatic foundations necessary to undertake some fairly substantial, sustained national efforts to close the very large educational performance gaps that existed among racial/ethnic groups at that time. A key year was 1965. With the launching of Head Start that year, the federal government began to invest fairly heavily in early childhood education for *disadvantaged* children. With the passage of the Elementary and Secondary Education Act of 1965, federal funds were authorized (via Title I) to be invested in schools serving large numbers of disadvantaged students. And, with the passage of the Higher Education Act of 1965, the federal government was able to create student financial aid programs that were partly designed to help economically disadvantaged students gain access to higher education.

These are remarkably recent legislative actions—they took place a mere two generations ago. That is not much time to eliminate huge differences in educational attainment and achievement among groups, especially when, throughout this period, we have had to continue to address educational and other vestiges of the racial/ethnic-based caste system that had existed on either a *de jure* or *de facto* basis for nation's entire history (Miller, 1995; Anderson, 1988). Moreover, none of the legislative actions in 1965 were actually narrowly focused on improving educational outcomes for underrepresented minorities. Rather, it was only because much higher percentages of underrepresented minority youngsters than Whites were growing up in disadvantaged circumstances that these initiatives disproportionately served the former.

In some respects, 1966 was an even more important year for the development of a major national effort to promote minority educational advancement. In response to the provision of the Civil Rights Act of 1964 requiring a study of educational opportunity, the U.S. Office of Education released *Equality of Educational Opportunity* in the summer of 1966 (Coleman et al, 1966). That document, which is commonly referred to as the Coleman Report (after its principal author, James Coleman), was a landmark in several respects. It offered the first national description of how home and school resources invested in

students' education during the elementary and secondary years varied by race/ethnicity. It also provided the first nationally representative standardized test score data at the elementary and secondary levels that could describe racial/ethnic differences in academic achievement patterns. With educational resource and achievement information in hand, the authors of the Coleman Report were able to discuss equality of educational opportunity in the United States in terms of both *inputs* and *outputs*. The emphasis on outputs was crucial, because it helped frame the long-term agenda as one of producing *equality of academic achievement results* among racial/ethnic groups. (In that regard, the No Child Left Behind Act is a descendent of the Coleman Report.)

Because the standardized test data presented in the Coleman Report showed that African Americans, Latinos, and Native Americans were scoring at much lower levels, on average, than Whites and Asian Americans, the report made it clear that the country had a very long way to go to provide comparable achievement results across racial/ethnic groups. It also made it clear that investments intended to raise achievement for underrepresented groups would have to address school-based and non-school-based needs.

In the last half of the 1960s, the National Assessment of Educational Progress (NAEP) program was established, which provided for the testing of national samples of elementary and secondary students in several subjects, including reading, math, and science, on an ongoing basis. One important result was that, during the ensuing decades, NAEP would be able to provide educators and policymakers with frequent snapshots of achievement gaps among racial/ethnic groups. That is to say, the federal government had created the means to provide national achievement data similar to that of the Coleman report at frequent intervals. Along the way, NAEP also has gathered considerable information on educational inputs. By the 1990s, NAEP also began to produce test score data for many of the states, which has offered opportunities to look at between-state differences in achievement patterns.

Also in the last half of the 1960s, the federal government and private foundations were providing the funding necessary for educators to expand their efforts to understand factors that contribute to achievement differences among groups and to find ways to close these gaps. This was essential, because the reality is that, when the federal government began to invest money in efforts to raise the achievement of disadvantaged and minority students in the mid-1960s, few empirically demonstrated strategies for doing so existed. For example, when Head Start began in 1965, model preschool programs, which could demonstrate through solid research that they helped disadvantaged youngsters do appreciably better in elementary and secondary school, did not exist. In fact, the now influential High Scope/Perry School model program was launched only a few years prior the creation of Head Start, and longitudinal data demonstrating its long-term educational benefits would not be available until the 1980s (Weikart, 1989; Schweinhart & Koshel, 1986).

As the 1960s closed, many American colleges and universities were beginning to implement affirmative action policies designed to increase enrollment of

underrepresented minority students. Some also were establishing programs intended to increase retention and graduation rates, because many of the students being admitted were economically disadvantaged and/or underprepared academically for the institutions in which they had enrolled. Fairly quickly, quite a bit of money for this work became available from government, foundations, and corporations, especially in the areas of science and engineering (Planning Commission for Expanding Opportunities for Minorities in Engineering, 1974; Lusterman, 1979). However, similar to the elementary and secondary level, these higher education efforts were being made in a context in which there were few, if any, research-proven approaches for producing higher retention and graduation rates (Gordon, 1986).

Factors that Make Closing of Achievement and Attainment Gaps More Challenging

Even as the federal government and the educational community (from preschool through higher education) were beginning to be more responsive to needs of disadvantaged and underrepresented minority students, a number of things were happening that made closing the educational performance gaps much more difficult than might otherwise have been expected in the 1960s.

The first of these is that, in the late 1960s, the United States was beginning to experience what would prove to be a several-decade-long period of high immigration. This continuous immigration has had a profound impact on educational performance gaps. The current period of high immigration is now about as long-lived as the one from about 1890 to the 1920s, during which millions of people came to America from Eastern and Southern Europe (Fuchs, 1990). The current era, however, shows little sign of ending any time soon.

One of the central features of the current period of immigration is that it has been geographically and, therefore, racially/ethnically, bimodal. A high percentage of the newcomers come from Mexico, Central America, the Caribbean, and South America, while a substantial percentage is from East, Southeast, and South Asia. A particularly salient educational feature of the immigrants from Latin America—especially for the largest group of Latino newcomers, people from Mexico—is that a high percentage of the adults and older teenagers (who tend not to enter U.S. schools) has not completed high school, with many having no more than an elementary school education. In contrast, one of the most salient educational aspects of Asian immigrants is that a relatively high percentage of the adults have at least a bachelor's degree (Lowell & Suro, 2002; Miller, 1999).

Owing to the strong correlation between SES and academic achievement, these immigration patterns have undoubtedly contributed to the surge in the number of high achieving Asian American students and large growth in the number of Latino youngsters who are at-risk in the nation's schools. (For an analysis of changes in the racial/ethnic mix of the student-age population, broken down by SES and immigrant/native-born status, see Vernez and Krop, 1999).

The second condition that has made closing the educational performance gaps more difficult than some might have expected in the mid-to-late 1960s is that the White majority has moved to much higher levels of educational performance since that time, in particular in terms of educational attainment. By 2000, about 34% of young White adults (the 25-to-29-year-old segment) had a bachelor's degree, up from less than 14% in 1964. Since less than 6% of African American young adults had a bachelor's degree in 1964, catching up to the rapidly increasing White college completion percentage would prove to be a formidable challenge, to say the least. In fact, by 2000, nearly 18% of young Black adults held a bachelor's degree, nearly triple the percentage that did so in 1964. Yet, their percentage in 2000 was only a little more than half of that of Whites and the absolute gap was actually larger than it was in 1964. Complicating the situation further, about 54% of the young Asian adults had completed a bachelor's degree in 2000, while only 10% of the Hispanics had done so (U.S. Census Bureau, 1964; U.S. Census Bureau, 2000).

The third difficulty for efforts to promote higher levels of educational performance for underrepresented groups is that, in the late 1960s, the supply of adequately paying jobs available to low skilled people in many urban areas, especially in the Northeast and Midwest, was increasingly inadequate. This, in turn, was contributing to a rise in unemployment rates, particularly among low-skilled African Americans in the inner city. Sadly, from the early 1970s into the 1990s, the unemployment rate for Blacks exceeded 10% in all but one year and averaged about 14% for that period (Miller, 1995). Beyond the high level of unemployment, these circumstances also made it much harder for many low skilled workers to earn enough to avoid poverty, even when they were regularly employed. The latter has proven to an especially difficult problem for low-skilled working single parents.

High concentrations of poverty in many urban neighborhoods have contributed to the tendency for many urban schools to serve mostly disadvantaged youngsters. By the 1980s, researchers were finding that both poor and non-poor children achieve at lower levels in high poverty concentration schools. Such schools tend to be under-resourced relative to their students' needs (Myers, 1986).

In the first years of the 21st century, the question of job losses has again become a highly visible economic issue, one that is not limited to the low-skilled or to inner city areas. Poverty rates also have moved up somewhat, after declining during much of the 1990s (Proctor & Dalaker, 2003). The recent rise in poverty and unemployment rates is a reminder that alarming economic obstacles for many students in underrepresented groups almost certainly will be with us for the foreseeable future, though their intensity may vary somewhat.

Efforts To Improve Educational Outcomes from the Late 1960s to the Present

From the late 1960s to the present an enormous amount and variety of work has been done at all levels of the educational system to improve educational outcomes for students from underrepresented groups. This work has been undertaken or supported by a wide range of teachers, educational administrators, educational researchers, government policymakers, leaders of advocacy organizations for underrepresented groups, foundation officials, and even executives of major corporations.

Volumes could and have been written about these efforts. For purposes of this essay, however, we will touch upon ten aspects of this work.

First, researchers have dug into a truly diverse set of topics that plausibly contribute to school- and non-school-based sources of the achievement gaps. An illustrative list includes differences in the financial resources available to schools and variations in how money is spent; alternative curricular and instructional approaches to teaching reading, especially in the primary grades; alternative curricular and instructional approaches to the teaching of mathematics in elementary and secondary school; tracking and un-tracking of students at different levels of academic proficiency for instructional purposes; the knowledge and skill levels of teachers; approaches to professional development of teachers; variations in how teachers treat and interact with students (differences in their expectations, questioning strategies, etc.); variations in leadership approaches used by principals; needs of children who are not proficient in English when they begin school; differences in verbal development opportunities in the home during the preschool years between low and high SES children; differences in learning opportunities outside of school during the elementary and secondary years; multiple ways that poverty can undermine learning; and the academic impacts of preventable health problems.

Second, there has been an ongoing effort for over 30 years to identify schools that are already helping students achieve at high levels, with the objective of gaining insights into sources of their success that could help other schools produce similar results (Weber, 1971). Apart from the desire to identify "effective schools" for school improvement purposes, this work also has been concerned with persuading people that it is possible to raise the achievement of students from underrepresented groups on a widespread basis (Edmonds, 1979). It is notable that interest in identifying schools that produce good results exists among researchers and organizations across the political spectrum. For example, in recent years such reports have emerged from organizations as different as the Education Trust and the Heritage Foundation (Barth et al., 1999; Carter, 2000).

Third, many school principals, teachers, district administrators, and university-based researchers have sought to develop new approaches to elementary and secondary education designed to produce higher levels of educational achievement among underrepresented minority and disadvantaged students. Some very influential efforts are now 30-to-35 years old. For example, the elementary school reform work of James Comer and his colleagues at Yale (the School Development Program) began in the late 1960s (Haynes, Emmons, & Woodruff, 1998). Senior administrators and school-level

educators (including Deborah Meier) in District 4 in East Harlem began their extensive efforts to develop small schools of choice in the mid-1970s (Bensman, 1987).

Consistent with these efforts, by the mid-to-late 1980s and early 1990s, numerous initiatives, considered to fall under a category increasingly called "whole school" reform or comprehensive school reform (CSR), were underway to improve elementary and secondary schools. The New American Schools Corporation, a national organization explicitly concerned with promoting the creation of "break the mold" schools, was also created in that period (Berends, Bodilly & Kirby, 2002). Typically, these CSR initiatives were (and are) attempting to change many things about schools simultaneously, out of recognition that producing higher achievement among underrepresented minority students is usually not a matter of doing only one or two things differently (Borman, Hewes, Overman & Brown, 2002). Among the most influential CSR initiatives to emerge in the late 1980s and early 1990s were Success for All (Slavin & Madden, 2001), Core Knowledge (Hirsch, 1996), and Accelerated Schools (Herman, 1999).

One of the distinctive features of these and other such efforts was that their leaders typically deliberately drew on a wide range of educational research, e.g., on curriculum and teaching strategies in particular subject areas, on school leadership practices, on professional development, and so forth. These initiatives also were in a position to draw, if they wished, on a growing body of research from other fields that might contribute to the design of more effective schools, such as cognitive psychology and business organization and management. Crucially, many of the CSR approaches also began to be evaluated (sometimes frequently) for their effectiveness in raising achievement, although the quality and rigor of the evaluations were uneven.

Thus, by the late 1990s, for the first time schools, districts, and state governments could choose among several competing approaches to improving schools—especially at the elementary level, which could claim (with varying degrees of empirical persuasiveness) both to be drawing heavily on educational research and to be producing meaningful achievement gains for underrepresented minorities and the disadvantaged. The federal government also was in a position to enact legislation designed to promote the use of CSR strategies deemed to have at least some empirical evidence that they could raise achievement of disadvantaged students. In 1998, it did so when Congress passed legislation authorizing $145 million for competitive awards to Title I schools that wished to adopt "scientifically based" whole school reform strategies. By fiscal year 2002, $310 million was being provided for that purpose—$235 million for Title I schools and $75 million for any schools that wished to compete for funds (Borman, Hewes, Overman, & Brown, 2002).

The pool of CSR initiatives is heavily weighted to the elementary school level. Relatively few are focused on high school improvement. This is understandable, because the achievement gaps are present at the start of schooling. Nonetheless, the heavy elementary emphasis of the CSR movement means that most of the approaches with reasonably extensive evaluations are at the elementary level.

Fourth, beginning in the early-to-mid-1980s, efforts to improve outcomes for underrepresented minority students were increasingly caught up in the standards-based-reform movement, for which state governments have provided much of the leadership. The latter have done more and more testing of their students, and raised the stakes associated with passing the tests, such as requiring passing scores to receive a high school diploma. Much of the original interest at the state level was based on a concern in the 1980s that the U.S. economy was losing its competitive edge, partly due to deficiencies in K-12 education. Because African Americans, Latinos, and Native Americans scored, on average, far below Whites on the tests, the achievement gaps became caught up in concerns about economic competitiveness. The growing awareness in the mid-1980s that the minority share of the American population was growing rapidly also probably contributed to greater attention to the achievement gaps—and to the concern that the gaps had negative economic consequences.

This means that it has now been nearly two decades since policymakers at the state level and, subsequently, in Washington began to focus regularly on differences in standardized test scores among racial/ethnic groups. Throughout this period, policymakers has had a steady source of data showing large differences in average scores, whether from state tests, NAEP tests, the SAT, ACT, or other sources.

Fifth, also as discussed earlier in this essay, most of the work that has been undertaken to raise the achievement levels of underrepresented minority students since the mid-1960s has focused on those from low SES circumstances, especially in economically disadvantaged communities and schools in urban and rural areas. Giving high priority to these children and youth has been essential, because so many of them tend to achieve at low levels, whether measured by standardized tests or grades. Nonetheless, in practice, giving high priority to low SES underrepresented minority students has too often meant giving almost exclusive attention to them, despite the overwhelming evidence that middle and high SES underrepresented minority students are not doing nearly as well academically as their White and Asian American counterparts.

Evidence on middle and high SES dimensions of the achievement gaps became available as far back as the late 1960s, when individuals in the old U.S. Office of Education conducted a secondary analysis of data gathered for the Coleman Report. That analysis showed that at low, middle, and high SES levels, African American, Latino, and Native American students scored much lower, on average, than their White and Asian peers at all three grades at which tests were administered—sixth, ninth, and twelfth. A great deal of additional data showing "within-class" achievement gaps became available in the 1980s and 1990s from a number of sources, including several NAEP subject area tests, the SAT, the National Education Longitudinal Study of 1988, the Armed Forces Qualifying Test, and the Early Childhood Longitudinal Study of 1998.

It was not until the superintendents of school districts in about a dozen university towns and suburban communities across the country announced in early 1999 that they were forming a consortium (in part) to address the achievement gaps between middle/high SES students from underrepresented minorities and their White counterparts in their schools

that this problem began to get the attention of some members of the news media, a few educational researchers, and a modest number grantmakers (Ferguson, 2002).

Sixth, because so much attention has been given to reducing the number and percentage of low achieving minority students from disadvantaged backgrounds, there has been little done over the years to develop effective, replicable strategies for increasing the percentage of underrepresented minority students who are very high achievers, even though Blacks, Hispanics, and Native Americans are severely underrepresented among the nation's top students. The situation began to change a little in the mid 1990s, with the rollback of affirmative action in admissions decisions at public colleges and universities in California and Texas. The former occurred as a result of Proposition 209 and the latter as a result of the *Hopwood* decision. These actions called attention to the severe shortage of African American, Latino, and Native American high school graduates each year who were fully competitive academically by traditional standards for admission to highly selective colleges and universities, and to the similar shortage of top bachelor's degree recipients from these groups to compete for admission to leading graduate and professional schools.

In 1999, the National Task Force on Minority High Achievement weighed in with several reports on the high achievement issue. Funded by a group of foundations and housed at the College Board, the Task Force was probably the first national group of educational and other leaders to focus exclusively on the need to address the high achievement issue—and to do so from preschool through higher education. In its main report, *Reaching the Top*, the Task Force also discussed the importance of addressing the middle/high SES achievement issue, because most high achieving students from all groups are from high SES and middle SES families. Thus, the middle/high SES component of the achievement gaps was directly and powerfully implicated in the high achievement issue (College Board, 1999).

The shortage of top underrepresented minority students at selective institutions was given renewed visibility in the summer of 2003, when the Supreme Court issued its decisions in two affirmative action cases involving the University of Michigan. *Grutter v. Bollinger et al.* upheld the admissions approach used by the Michigan law school and *Gratz v. Bollinger et al.* struck down the approach used for undergraduate admissions at Michigan. In her opinion for the majority in *Grutter*, Justice Sandra Day O'Connor noted how important it is to increase the number of underrepresented minority students who have the very high academic credentials (such as high LSAT), so that it eventually will not be necessary to consider race/ethnicity in admissions decisions. These rulings may have given additional impetus to efforts at some selective colleges and universities to find ways to increase the number of high achieving underrepresented minority students on the undergraduate level.

Seventh, over the past thirty years, considerable attention has been given to determining whether and how racial/ethnic prejudice and discrimination might be having an impact on the academic achievement of students from underrepresented groups. Three avenues of research are important to note here. One is the ethnographic work of John Ogbu and

Signithia Fordham on whether and how the truncated opportunity structure experienced by most African Americans in the past, and by many in the present, might be contributing to the relatively low academic achievement levels of Black high school students in urban schools (Fordham & Ogbu, 1986). Ogbu has suggested that, among other things, some of students may lower their academic effort because they do not believe that working hard in school will pay off (Ogbu, 2003). A second important line of research is series of studies that Claude Steele and his colleagues have conducted at selective universities on whether and how the historic negative intellectual stereotype of African Americans might be lowering the academic performance of some Blacks. The third line of research pursued by several scholars has been concerned with negative views that Whites may hold of various aspects of African American and Latino "culture" and how this may lead to less support of education and other policies.

One of the most disturbing aspects of much of this research is that there are complex, dynamic interactions between the generally lower academic performance of African Americans and various dimensions of prejudice and discrimination, which make efforts to raise the academic achievement of many students more difficult than would otherwise be the case. For example, Steele's research suggests that the *stereotype threat* posed by the old negative view of Black intellectual potential leads many top African American students at selective institutions to be concerned that, if they do not do well, they will confirm the stereotype (Steele, 1997). Unfortunately, owing to the shortage of top Black high school graduates that emerge annually from the nation's secondary schools, relatively few African Americans are among the best-prepared freshman each year at selective colleges and universities. Thus, if students experience stereotype threat in college, they often will be doing so in a context in which few African Americans are among the highest performers in their courses from the start of college.

Ronald Ferguson has identified a somewhat different issue related to the shortage of high achieving Black students in his research in affluent suburban school districts. It involves the strong group affiliation that includes an awareness of the lower historic status of African Americans. He is finding evidence that some African American high school students who are academically prepared to take honors and AP courses may sometimes be reluctant to do so, because they will be separated from their Black friends (few of whom may be prepared to take such courses) (Ferguson, 2002).

A couple of final points need to be made here. Over the past five years, it has become increasingly evident that one of the biggest challenges is that efforts to improve the academic outcomes of underrepresented students must be pursued under *conditions of fewness*—under conditions in which very small percentages of students from these groups are high achievers as measured by grades and test scores from kindergarten and the first grade onward. One consequence of fewness is the one suggested by Claude Steele: that it may make a considerable number of African American students more vulnerable to stereotype threat and other contemporary manifestations of our nation's history of racial/ethnic prejudice and discrimination (Steele, 1997).

There also seem to be a series of curricular, instructional, and other problems related to fewness, which have little or nothing to do directly with prejudice or discrimination. For example, in a typical elementary school serving mainly severely disadvantaged underrepresented minority children, many will be achieving at low levels, while few will be performing at high levels. As a result, curriculum and teaching strategies may be heavily weighted to helping "at-risk" students reach credible levels of performance. Most of the after-school assistance available in these schools also may be targeted to at-risk students, owing to a concern that, without extra help, many may be retained in grade. As a result, the school may be able to offer very little supplementary assistance to high achieving students designed to help them stay on a high performance trajectory. As these students move through school, they may not have enough high achieving peers to get the same benefits of group study available to White and Asian high achievers in the suburbs. At the high school level, there may not be a sufficient number of well-prepared students to offer the robust mix of advanced courses that is common in affluent suburban high schools.

Eighth, the previously discussed heightened awareness of the achievement gaps that began to emerge among educators and policy makers in the 1980s, has led to a movement to have school, school district, state, and national achievement data for students that are disaggregated by race/ethnicity and by social class. The purpose is to facilitate the monitoring of progress being made to raise achievement levels of underrepresented minorities and disadvantaged students. Disaggregating school and district data along these lines is, of course, a central feature of the No Child Left Behind Act.
This disaggregation does not include efforts to monitor student achievement trends by student segments defined simultaneously by race/ethnicity and social class, such as African American students from high SES families or Hispanic students from middle SES circumstances. This means that educators, policymakers, and others interested in closing achievement gaps are not getting the data that they need to determine whether within-class achievement gaps are growing, shrinking, or staying the same. For instance, if there is some overall progress for a particular minority group, they cannot determine if the progress is distributed across SES segments, or confined to one or two.

It also must be noted that, because there are gender differences in academic achievement, disaggregation should monitor segments defined simultaneously by race/ethnicity/SES, and gender. For example, schools with significant numbers of Native American students should be able to monitor Native American males from low SES circumstances.

In a related vein, the monitoring of student achievement is generally focusing these days on the questions of whether overall achievement gaps (differences in average achievement levels) are being reduced and whether gaps in the percentages of each group that are demonstrating "proficiency" in key subjects are being reduced. Educators and policy makers are not asking for data that would enable them to monitor the overall distributions of achievement of groups in a precise manner. This is the case, even though the big differences in achievement are in the "tails" of the achievement distribution (both in the distributions of grades and standardized test scores). Given the lack of attention to the high achievement issue, the practical implication of this is that we are not using

academic achievement monitoring systems to monitor whether progress is being made on the high achievement issue for some or all of the underrepresented groups. Because the monitoring systems usually do not disaggregate racial/ethnic data by social class, it also means that it is not possible to monitor progress on the high achievement issue for specific SES segments of underrepresented groups.

Ninth, because some racial/ethnic groups are doing much better than others academically, one potentially valuable approach to identifying promising strategies or methods to raise academic achievement and educational attainment levels of underrepresented groups is to look systematically at what the most successful racial/ethnic groups are doing inside and outside school (in the home and community). A variation of this notion is that it might be productive to study what the most successful students (and their families) from the underrepresented groups are doing to produce positive results. The point here, of course, is not that no work in these areas is being done, but that there is neither enough such research nor is it being conducted in a structured, cohesive manner for strategy development purposes.

Despite the potential benefits, the idea of looking much more systematically at the experiences of academically successful racial/ethnic segments continues to be a low priority among educators, policymakers and researchers who are working to close the achievement gaps. There are understandable reasons for this. Some Asian Americans might worry that such research would be another way to single them out as a "model minority." Within the White community, one of the most academically successful segments of our society—the Jewish population—might worry that conducting research on factors that may help many of their students achieve at high levels could trigger anti-Semitism in some quarters. Within underrepresented groups, such research might be viewed by some members as feeding the notion that their cultures are somehow inferior. Nonetheless, our unwillingness to pursue this area systematically is probably denying us access to tools and strategies that could accelerate the advancement of underrepresented groups. The lack of research also denies access to insights that could help raise achievement levels of many students from all racial/ethnic groups and social classes.

Tenth, over the years, efforts to synthesize the findings of research of potential relevance to raising student achievement have grown in tandem with the overall body of educational research. The extensive work done recently to distill best practices for teaching children to read is one of the most highly visible and influential research synthesis efforts (National Reading Panel, 2000).

Parallel to the growth of synthesis work has been the previously mentioned growth of efforts to assess the effectiveness of specific educational strategies intended to raise academic achievement levels of students. On the K-12 level, much of this growth has been associated with CSR initiatives; but it also has included evaluations of a wide range of other types of programs and strategies, such as assessments of the impact of school choice programs and efforts to reduce class size. And the expansion has included evaluations of programs and strategies on the preschool and higher education levels.

In the past few years, several reviews of evaluations and studies have been conducted of programs and strategies on the K-12 level and in higher education. One of the major findings is that available evidence indicates that the capacity of existing strategies to raise academic achievement levels of the targeted students is real, but modest. For example, Geoffrey Borman and several colleagues recently completed a meta-analysis of 213 studies of 29 of the best-known CSR programs and strategies (Borman, Hewes, Overman, & Brown, 2002). They found an overall effect size of 0.12, which is about one-eighth of a standard deviation. This means that the average student in the CSR schools had achievement test scores that were higher than about 55% of the control students in non-CSR schools.

In an analysis of data on major efforts to turn around low performing schools in New York State, in Memphis, Tennessee, and in Prince Georges County, Maryland, Ronald Brady found that getting even half of the schools to produce high academic achievement was an accomplishment (Brady, 2003). Moreover, the gains that were produced were often small, and maintaining the gains could be difficult.

In a recent review of studies and evaluations of intervention programs for underrepresented minorities on the K-12 level that target underrepresented minority students, Patricia Gandara and Deborah Bial found that, while some helped more students complete college prep courses and/or to go on to attend college, none had solid evidence that they produced significant increases in academic achievement as measured by higher grades or standardized test scores (Gandara, 2001). Indeed, few of the studies and evaluations even attempted to determine whether the programs and strategies had impacts on academic achievement.

In a report for the National Task Force on Minority High Achievement, Gandara and Julie Maxwell-Jolly reviewed studies and evaluations of several programs and strategies on the undergraduate level (Gandara, 1999). They found few programs with extensive evidence that they helped students earn a higher GPA in college.

Earlier this year, an NSF-funded initiative known as Building Engineering and Science Talent (BEST) issued a report on its effort to identify evidence-based programs at colleges and universities across the country that are designed to support the academic success of students from underrepresented groups in higher education (BEST, 2003). The report noted that over 100 programs were reviewed over the course of the study. Only one of the undergraduate programs cited by BEST had evidence that it helped raise GPAs of underrepresented minority students. It was the one that Gandara and Maxwell-Jolly cited as having good evidence in their report; and, in fact it actually had fairly high visibility nationally for several years before Gandara and Maxwell-Jolly's study. (BEST had no programs with such evidence to cite at the graduate level.)

Beyond these findings, Borman and his colleagues and Gandara and Bial noted that very few of the evaluations of programs compared randomly assigned students to the program with true control groups or even had compared high quality matched sets of comparable

students (in the absence of true control groups). Consequently, they called for a much greater commitment to conducting high quality evaluations.

Their findings and recommendations regarding evaluations are consistent with those of the Coalition of Evidence-Based Policy in its 2002 report, *Bringing Evidence-Driven Progress to Education: A Recommended Strategy for the U.S. Department of Education.* Owing to the limited number of high quality evaluations of education strategies—and, therefore, the limited number of strategies that can demonstrate that they raise student academic achievement levels, the Coalition proposed that the Department of Education "should launch a major, Department-wide effort to:

(i) Build the knowledge base of educational interventions proven effective through randomized controlled trials—not just in small demonstration projects but in large-scale replication; and

(ii) Provide strong incentives for widespread use of such proven interventions by recipients of federal education funds" (Coalition for Evidence-Based Policy, 2002).

Borman and his colleagues, the Coalition, and BEST did not discuss the virtual absence of program evaluations concerned with determining whether the programs can help raise the achievement of middle/high SES underrepresented students or help increase the percentage of underrepresented students at all SES levels that are among the nation's highest academic achievers at any level of the educational system. Encouragingly, Gandara and Bial did note the importance of helping more underrepresented minority students achieve at high levels.

Overview of the Academic Achievement Gaps

Over the course of this essay, numerous references have been made to large differences among racial/ethnic groups in academic achievement from the start of schooling on through higher education. In this section, a range of illustrative standardized test and GPA data from several sources are presented, which describe the scope of the differences at the various levels of the educational system. We begin with higher education.

Data from the 1999-2000 National Postsecondary Student Aid Study (which surveyed a nationally representative sample of all students enrolled in higher education) show that about 17% of Whites and 14% of the Asian Americans earned mostly A's, but only 7% of African Americans, 10% of the Hispanics, and 8% of the Native Americans did so (Horn, Peter, & Rooney, 2002). In contrast, 30% of Whites and 32% of the Asians earned C's and D's or lower compared to 49% of the Blacks, 42% of the Latinos, and 42% of the Native Americans.

Academic achievement gaps have been found to be quite large at selective colleges and universities. For example, drawing on a large database assembled from 28 selective colleges and universities, William Bowen and Derek Bok reported in an influential book in the late 1990s that, among students who enrolled at the institutions in 1989, the average White student graduated with a GPA of 3.15 and had a class rank at the 53rd percentile, while the average Black student graduated with an average GPA of 2.61 and had a class rank at the 23rd percentile (Bowen & Bok, 1998).

Differences of this magnitude in average GPA at selective colleges and universities are typically associated with large differences in the percentages graduating with a high GPA. Although few institutions make such information available to the public, this author has had the opportunity to see data on this question from a large number of selective colleges and universities over the past few years. Those data suggest that, at many selective institutions, the percentage of Whites and Asian Americans who graduate with a high GPA (say, a 3.5+ on a 4 point scale) is three to five times the percentage of African American, Latino, and Native Americans who do so. The differences are even larger at very high GPA thresholds, such as 3.75+.

Bowen and Bok reported that the more than half point difference in average GPAs between Whites and Blacks in their study was about twice as large as predicted by differences in the academic preparation for college between the White and African American students. A 0.2-0.3 lower than expected average GPA may look inconsequential to some people, but a shift of that amount has a major impact in the "right tail" and "left tail" of the GPA distribution, e.g., many fewer than expected African American students would be graduating with honors and many more would be graduating with a low GPA. Moreover, since the institutions in question enroll many of the academically best-prepared minority students in the country each year (many of who are from middle and professional class families), the lower than expected achievement constitutes a serious erosion of performance in this previously high achieving group of

students. The fact that African American students in the study with SAT scores over 1300 graduated at the 36th percentile, on average, while Whites with similar scores graduated at the 60th percentile, underscores this conclusion. Bowen and Bok also found a significant, albeit smaller, overprediction pattern for the Hispanics in their study relative to Whites.

Consequential patterns of overprediction similar to those found by Bowen and Bok have been reported by the authors of many other studies going back 20-30 years at the undergraduate, graduate, and professional school levels (Klitgaard, 1985; Ramist, Lewis, & McCamley-Jenkins, 1993). Moreover, such differences have continued to be found in recent studies (Cole & Barber, 2003).

Let us turn now to the K-12 level. One of the best sources of national information on achievement patterns of groups is the National Assessment of Educational Progress (NAEP), which tests national and state samples of fourth grade, eighth grade, and twelfth grade students in several subjects, including reading, math, science, and writing. Three performance thresholds are established to describe student performance—*basic, proficient, and advanced.* NAEP reading tests results in 2002 illustrate the large differences in high and low achievers that continue to exist among racial/ethnic groups at both the elementary and secondary levels.

Among twelfth graders nationally, 6% of Whites and 4% of the Asian Americans scored at the advanced level in reading, while only 1% of African Americans, and 1% of Latinos did so. At the same time, 21% of Whites and 27% of Asians scored below the basic level, while 46% of Blacks, and 39% of Hispanics did so. (Data for 2002 are not available for Native American twelfth graders.)

In the fourth grade, 10% of Whites and Asians scored at the advanced level in reading, compared to 2% of African Americans, 2% of Latinos, and 5% of Native Americans. And, 25% of Whites and 30% of Asians scored below basic, while 65% of Blacks, 56% of Latinos, and 5% of Native Americans did so (Grigg, Daane, Jin, & Campbell, 2003).

The NAEP tests in math and science in 2000 tell essentially the same story. For instance, among twelfth graders on the NAEP math test in 2000, 3% of Whites and 7% of Asian Americans scored at the advanced level, compared to less than one-half percent of the Blacks, Latinos, and Native Americans. And, about 26% of the White and 20% of the Asian twelfth graders scored below basic on the math test in 2000, while 69% of African Americans, 56% of Latinos, and 43% of Native Americans did so (Braswell, Lutkus, Grigg, Santapau, Tay-Lim, & Johnson, 2001).

Among fourth graders on the NAEP science test in 2000, 5% of the White fourth graders scored at the advanced level, compared to less than one-half percent of the Blacks and 1% of Hispanics and Native Americans. Furthermore, while only 21% of the White fourth graders scored below basic on the 2000 science test, 66% of African Americans, 58% of Latinos, and 43% of Native Americans did so. (There were no science scores for Asian fourth graders on the NAEP 2000 science test, but on the 1996 test, 4% of Asian fourth graders scored at the advanced level and 34% scored below basic.)

Because of the continuing shortage of top African American, Hispanic, and Native American high school graduates each year, it is useful to look at recent SAT and AP data relevant to this issue, because they are two sources of information widely used in the admissions process at selective colleges and universities. Table 1 presents data on the number and percentage of high school seniors from each group that scored 700 or higher on the SAT math section. This score threshold has been chosen, because many students admitted to highly selective colleges and universities score at that level. (The math and verbal sections of the SAT are each scored on a scale of 200 to 800.)

Table 1

High School Seniors in 1988 and 2000 That Scored 700 or More On the SAT Math Section, by Race/Ethnicity

	1988			2000		
	No. with 700+	% with 700+	No. of Test Takers	No. with 700+	% with 700+	No. of Test Takers
White	25,530	3.1	813,116	41,449	5.8	712,105
Asian	5,394	8.4	64,102	15,456	16.0	96,717
Black	249	0.3	97,483	746	0.6	119,591
Mexican American	149	0.7	22,722	555	1.2	44,921
Puerto Rican	53	0.5	11,497	165	1.2	14,147
Other Latino	273	1.4	20,213	793	2.0	38,804
Native American	105	0.9	12,330	195	2.5	7,658
Other	473	3.4	14,094	2,528	6.5	38,634
No Response	2,145	2.7	78,807	12,156	6.5	187,701
Total	34,371	3.0	1,134,364	74,043	5.9	1,260,278

Source: The College Board. (2000a). *1988 College Bound Seniors (Recentered): Ethnic and Gender Profile of SAT and Achievement Test Takers for the Nation.* New York: Author.
The College Board. (2000b). *2000 College Bound Seniors: Ethnic and Gender Profile of SAT and Achievement Test Takers for the Nation.* New York: Author

In 2000, there were 41,449 White and 15,456 Asian high school seniors who scored 700 or higher on the math section of the SAT, while there were only 746 Blacks, 555 Mexican Americans, 165 Puerto Ricans, 793 other Latinos, and 195 Native Americans who did so. This meant that there were 23 times as many White and Asian seniors who scored 700+ on the math section than there were underrepresented minority who did so (56,905 versus 2,454). These numbers were heavily related to the differences in the percentages of test takers among the groups that scored at that level: An extraordinary 16.0% of the Asian seniors along with 5.8% of the White seniors scored 700+, compared to only 0.6% of African Americans, 1.2% of the Mexican Americans, 1.1% of the Puerto Ricans, 2.0% of the other Latinos and 2.5% of the Native Americans.

It is informative to compare the results in 2000 with those of 1988, since NAEP test score data in the period suggest very little progress was made in closing achievement gaps in that period. Table 1 shows that, while all the groups had growth in the number and percentage of their test takers who scored 700+ on the SAT math section, the absolute growth in the percentage of high scoring test takers was much larger for Asians and Whites than for the other groups.

There is one more point that must be made. Between 1988 and 2000, the percentage of high school seniors who took the SAT, but did not respond to the question about their race/ethnicity, grew from 7% of the test takers to 15%. Based on the scoring patterns of the nonrespondents in 2000, it seems likely that a high percentage were White and Asian. If so, the growth of White and Asian high math scorers on the SAT was much larger than the data here shows.

Let us now turn to data on recent scoring patterns on Advanced Placement (AP) Program course exams. Table 2 presents data on the average exam scores for racial/ethnic groups on five AP course exams in 2002—biology, calculus AB, Chemistry, English literature and composition, and U.S. history.

Table 2

Average Performance on Selected AP Exams 2002, by Race/Ethnicity

	Biology	Calculus AB	Chemistry	English Literature & Composition	U.S. History
White	3.20	3.19	2.83	3.14	2.92
Asian	3.29	3.20	3.05	3.02	2.93
Black	2.14	2.17	1.86	2.13	2.08
Mexican American	2.04	2.22	1.75	2.18	1.96
Puerto Rican	2.63	2.68	2.27	2.57	2.38
Other Latino	2.51	2.64	2.28	2.54	2.32
Native American	2.65	2.68	2.18	2.57	2.36
Other	3.06	3.07	2.84	3.06	2.87
No Response	3.10	3.14	2.86	3.10	2.83
All	3.10	3.10	2.79	3.00	2.81

Source: The College Board. (2002). *May 2002 Administrative Date for AP, Table for School AP Grade Distribution by National Total for All Students and Ethnic Group.* New York: Author.

AP exams are scored on five-point scale, with 1 being the lowest and 5 the highest. Traditionally, a score of 3 has been viewed by many colleges and universities as evidence of performing well enough to earn college credit for the course, or to be exempted from the introductory course at the institution. However, highly selective colleges may require a score of 5 for credit or advanced placement—if they allow either. The data in Table 2 show that on four of the five exams Asians averaged at least a 3, while Whites did so on three exams. On the remaining exams, the Asian and White students had average scores

that were generally close to a 3. In contrast, none of the underrepresented groups came close to averaging a 3 on any of the five exams. Moreover, Blacks and Mexican Americans—the two largest underrepresented minority segments—averaged only about a 2 on all five exams. The average scores presented in Table 2 are typical of those that the groups received on most of the 30+ AP exams in 2002.

These scoring patterns mean that the overwhelming majority of the high scores on these exams in 2002 were received by White and Asian students, while underrepresented minorities accounted for a disproportionately large share of those who received a 1. For instance, underrepresented students were 12% of the AP biology exam takers in 2002, but less than 4% of those who scored a 5, about 6% of those with a 4, about 9% of those with a 3, about 14% of those with a 2, and fully 33% of those with a 1. In contrast, Whites and Asians accounted for 82% of those who took the exam, 90% of those with a 5, and 60% of those with a 1.

What does this mean in absolute terms on the high scoring front on AP biology? It means that 8,684 Whites and 2,853 Asians received a 5 in 2002, but only 159 African Americans, 106 Mexican Americans, 44 Puerto Ricans, 201 other Latinos, and 24 Native Americans did so. Thus, there were nearly 22 times as many Whites and Asians with a 5 then underrepresented minorities—11,537 compared to 534. Moreover, nearly two-fifths of the underrepresented students with a 5 were from the other Latino category.

Let us now shift to data on a very important topic—differences among racial/ethnic groups in academic achievement within social class categories. There are no regularly published data on trends in "within-class" achievement patterns. However, Table 3 presents some SAT data for 1988 and 2000 on this matter. It shows average combined verbal and math scores for high school seniors in those years who reported that they had at least one parent who had earned a high school diploma and for those who reported having at least one parent with a graduate degree.

Table 3

Average Combined SAT Math and Verbal Scores for High School Seniors In 1988 and 2000, by Race/Ethnicity and Parent Education

	At Least One Parent With A High School Degree			At Least One Parent With A Graduate Degree		
	1988	2000	Change	1988	2000	Change
White	983	986	+3	1106	1137	+31
Asian	958	995	+37	1130	1176	+46
Black	819	823	+4	938	958	+20
Mexican American	913	906	-7	1018	1030	+12
Puerto Rican	854	880	+26	939	999	+60
Other Latino	904	897	-7	1010	1026	+16
Native American	906	920	+14	1005	1040	+35
Other	911	944	+33	1081	1120	+39
All	955	949	-6	1094	1124	+30

Source: The College Board. (2000a). *1988 College Bound Seniors (Recentered): Ethnic and Gender Profile of SAT and Achievement Test Takers for the Nation.* New York: Author.
The College Board. (2000b). *2000 College Bound Seniors: Ethnic and Gender Profile of SAT and Achievement Test Takers for the Nation.* New York: Author.

The SAT data in Table 3 look at within-class achievement gaps at the end of high school. Table 4 presents data on within-class achievement gaps in the first grade. Specifically, these data show the percentages of White, Black, and Hispanic first graders in the federal government's Prospect Study that scored in the top quartile on standardized reading and math test. Thus, not only do these data show that the within-class gaps are present at the start of elementary school, they show that the underrepresentation of African Americans and Latinos among high achieving students exists at that point as well. (The Prospects Study tracked national samples of students for several years in the first half of the 1990s.)

Table 4

Percentages of First Graders in the Prospects Study That Scored At or Above the 75th Percentile in Reading and Mathematics, by Race/Ethnicity and Parent Education Level

	% in Top Quartile in Reading		% in Top Quartile in Math	
	No Parent with High School Degree	At Least One Parent with College Degree	No Parent with High School Degree	At Least One Parent with College Degree
White	13	33	29	49
Black	6	13	12	17
Hispanic	8	11	20	28

Source: Analysis of Prospects Study data by G.D. Borman for L.S. Miller

Note that the much smaller percentages of Black and Hispanic first graders than Whites scored in the top quartile on both the reading and math tests at both high and low parent education levels. These differences in achievement were sufficiently large that White first graders with no parent with a high school degree had percentages scoring in the top quartile in both math and reading that were as high as or higher than for African Americans and Latinos who had at least one parent with a college degree.

A recent analysis of kindergarten data from the federal government's Early Childhood Longitudinal Study found not only that Asians and Whites performed much higher overall than African Americans and Latinos on a number of reading and math tasks as they started kindergarten, but also that they did so in several social class categories (Coley, 2002). Some of the largest of the within-class differences were among children from the highest SES quintile.

The NAEP, SAT, AP, Prospects, and other data reviewed here make it clear that we continue to have large achievement gaps to close from preschool through higher education. To close these gaps, large improvements in academic achievement will be required for all social class segments of underrepresented groups. For these gaps to be closed, it also will be necessary to markedly reduce the percentage of low achievers and substantially increase the percentage of high achievers.

Promoting More Rapid Progress over the Long Term: Recommendations

As noted earlier, over the past two generations, a great many preschool and K-12 teachers, college and university professors, educational administrators at all levels of the system, educational researchers, federal and state policymakers, and others have worked very hard to improve educational opportunities and outcomes for African American, Latino, and Native American students. Although their hard work—and the hard work of the students and their families—has helped produce valuable gains, underrepresented groups still have much lower academic achievement and educational attainment levels than Whites and Asian Americans. Moreover, the body of empirically demonstrated strategies for markedly increasing the rate of educational progress of underrepresented minorities continues to be modest, despite a much-expanded effort since the mid 1980s to develop more effective approaches.

The recommendations fall into two categories. One category focuses on tasks concerned with developing more evidence-based strategies. The other category focuses on organizational requirements for pursuing these tasks. There are eight task-oriented recommendations.

1. *Academic achievement patterns should be monitored on a disaggregated basis, using categories defined simultaneously in terms of race/ethnicity, social class, and gender.* This approach to monitoring should be pursued from at least the start of

kindergarten through the secondary level, in order to be able to gauge the size of gaps and amount of progress toward eliminating them. The principal information system for providing national- and state-level achievement data in this form should be NAEP. Because NAEP assessments currently are not undertaken earlier than the fourth grade, this would require adding an assessment point at the start of kindergarten. Sample sizes of students for NAEP tests probably would need to be expanded in order to pursue this level of disaggregation. In order to manage the cost of the expansion of the NAEP system, testing could be done at less frequent intervals. States should develop approaches for creating district- and school-level testing systems that would produce the kind of disaggregation recommended here, in order to monitor progress in the schools and districts. Ideally, school and district achievement would be monitored via both grades and test scores. Private entities with major testing and assessment programs also should publish their results on a disaggregated basis along the lines suggested here. For instance, the College Board should make SAT and AP results available on that basis.

2. *Efforts to design and test strategies for raising achievement of underrepresented students should not only include those targeted mainly at improving outcomes for low SES students at risk of achieving at low levels, but also include those designed to raise the achievement of middle and high SES underrepresented minority students.* This means that a great many strategies in the future should be designed for suburban schools, because large numbers of middle and high SES students attend them. Over the next ten to 20 years, strategy development work for middle and high SES underrepresented minority students should include initiatives from preschool through high school. However, it is essential that the highest initial priority be given to the early years, because the achievement gaps for these segments are large in the primary grades, have at least some of their foundations in preschool—and it has proven very difficult to reduce achievement gaps once students reach middle school and high school, much less college.

3. *Evaluations of strategies also should look for impacts for all SES segments of underrepresented students.* This should be done in virtually all schools, including those serving mostly disadvantaged students and those serving mostly middle and high SES students. This will be very important in schools that have substantial segments of both low and middle/high SES underrepresented minority students—patterns that now exist in a fair number of suburban schools. The average levels of achievement of these two segments typically are different, i.e., the average for the former is usually lower than the one for the latter. Thus, these schools have a pressing need to produce gains for both segments. In a number of these schools there also are substantial numbers of middle and high SES White students who are achieving at significantly higher levels than middle and high SES underrepresented minority students and far above the low SES students. Thus, strategies that are developed will need to support the continued success of the White students, while helping each of the underrepresented minority SES segments make more progress than in the past. Few, if any, CSR or other school improvement strategies have been developed or evaluated for such complex circumstances.

4. *Evaluations of strategies should look for impacts for students who are performing across the entire distribution of academic achievement.* It is important to know whether

strategies can help students at a number of achievement levels make progress, or mainly help one or two segments. Ideally, strategies would help raise achievement of students at several levels, e.g., students in all four quartiles of performance. However, we may find that such strategies will be relatively rare, and that typically strategies will help some students much more than others. Medicine may offer a useful example here. The medical community—and most of the rest of us—understands that most drugs and other medical procedures do not provide the same level of benefit for everyone with a particular illness. Some people may benefit a lot and some may not be helped at all. It also is understood that there are often side effects, and that those will vary among individuals who receive the treatment as well. Of course, the medical community is constantly striving to reduce these variations and to produce more effective therapies. But practitioners, researchers, and others in the medical community (including regulators) also make a point of describing the limitations of what can be done—and the empirical work provides the evidence of the limitations of therapies, not just the evidence of their benefits.

5. *Similarly, tests of promising strategies and their evaluations should be widespread enough to gather information on what the realistic expectations are for how their institutional effectiveness will vary.* The circumstances of schools vary—and can change quickly (when school leadership turns over, a number of teachers retire, etc.) Educational leaders, policymakers, and others need to know what kind of institutional variation is likely to occur. Even more important, they should actually expect good strategies to produce variation in their institutional outcomes (as well as variation in benefits among individual students) and, therefore, not necessarily conclude that they are failures when results differ a great deal among schools (and among students). Indeed, learning to accept that good strategies will often vary a lot in their effectiveness at the institutional (and student) level is an essential part of education becoming a mature, empirically grounded profession. The medical example in the previous recommendation is illustrative of that aspect of a mature, evidence-based profession.

6. *Syntheses of research designed to inform the development of more effective educational strategies should be conducted in ways that will allow an assessment of their potential to help students at different achievement levels raise their performance.* For example, if the overall gap in reading achievement between, say, African Americans and Whites is to be closed over the course of the K-12 years, it will require reducing the percentage of Blacks reading at low levels, moving some in the middle to above average levels of reading proficiency, and moving some above average readers to high levels of proficiency (while holding high performers on a high achievement trajectory). Moreover, these shifts would probably have to start in kindergarten (or even preschool). Describing the task of closing the reading achievement gap between Blacks and Whites raises important operational questions about the reading research base: To what extent does existing reading research offer strong guidance for all of these purposes for the primary grades? To what extent does it offer such guidance for the last half of grade school? And, so forth. If the research base cannot offer such guidance, areas for further research will have been identified. Syntheses of this kind in several subject areas at the elementary, middle, and high school levels, and that these syntheses may reveal some

major gaps in the knowledge needed to develop effective strategies for pursuing the complex achievement agenda described here.

7. *In addition to the strategy development, evaluation, and synthesis work suggested for the pre-K-12 world, there should be equivalent efforts at the higher education level.* It is essential that such efforts be undertaken for several reasons. One is that, as noted earlier, there are few proven strategies available in higher education for raising the academic achievement (as measured by grades) of underrepresented minorities on the undergraduate and graduate and professional school levels. Another is the previously discussed tendency for underrepresented minority students to earn lower grades at historically majority institutions, including selective ones, than would be predicted by traditional measures of their academic preparation for college. Finally, higher education is the end of the formal educational pipeline. No matter how well things go earlier in the system, it must go well at colleges and universities.

8. *Efforts to learn more about why some groups have higher levels of academic achievement and educational attainment than others should be greatly expanded, much more systematic, and linked explicitly to strategy development.* More academically successful racial/ethnic segments should be studied systematically for the specific purpose of developing strategies intended to raise achievement levels of students from less academically successful groups. Priority should be given to the early years, with emphasis on learning more about whether children from more successful segments have greater opportunities for verbal development relevant to doing very well in school than has been understood to date; and, if so, what the nature of those opportunities are and how they might be provided to many others.

The following are two organizational recommendations. One concerns the organizations that are required to do the work and the other concerns those required to pay for it.

1. *A large number of entities need to be established that will specialize in implementing one or a few aspects of the recommendations for increasing evidence-based strategies.* Because a great many complex things need to be done, specialization is essential. No single or even several entities could handle the agenda described here. It also is necessary for another reason: Two of the challenges stressed here, the high achievement issue and the within-class issue (especially the middle/high SES dimension) have been difficult to get addressed over the past several decades, in part because of the heavy priority given to the low achievement problem of many low SES minority youngsters. Unless multiple entities are created to focus on various dimensions of these issues on an exclusive basis, they could easily remain low priorities.

2. *Financial resources should be invested in a highly focused way over the next several decades to develop, evaluate, and promote the use of effective strategies for helping close the various dimensions of the achievement gaps.* This may seem to be a gratuitous recommendation, since large investments have been made over the past several decades to strengthen efforts to close the achievement gaps by the federal government (through the Department of Education and other government agencies), private

foundations, corporations, and individuals; and they undoubtedly will continue to be made for the foreseeable future. However, the move toward the development of a more evidence-driven educational system will not only be very expensive, but also require investors to provide financial support in a highly informed, sustained manner.

Those who will be doing the work will need supporters who can invest for the long-term and who will be almost as expert in the subjects that they are supporting as the "doers." Furthermore, just as we will need entities that specialize in aspects of the achievement gaps that have relatively low priority, we will need funders who have made a decision to make investing in them their priority. In that connection, the recent decision of the U.S. Department of Education to invest much more of its resources in the testing of strategies using rigorous methodologies suggests that there will be much more money than in the recent past spent for such purposes.

Conclusion

It has been almost 21 years since this author began to address the high achievement dimension of the achievement gaps for underrepresented minorities and almost 20 years since he began working on the middle/high SES dimension of them. At that time, very little work was being done on those issues and there was little interest among educators, policymakers, researchers, foundation officers, and others in expanding efforts to address them. Indeed, making presentations in the mid 1980s (and even mid 1990s) in which one used some of the kinds of achievement data presented in this essay could get one shouted out of the room.

Similarly, a generation ago, the movement to develop educational strategies using highly empirical design, testing, and evaluation approaches was still small. However, it has benefited from progressively more attention in the ensuing years, and seems to be gaining genuine momentum. There are risks that this movement will lose steam when it proves difficult to develop strategies that, by themselves, produce large gains in achievement on a widespread and consistent basis; moderate benefits may be hard to sell to policymakers, especially if they are costly or require major changes. Nonetheless, it seems likely that the movement to be more empirical has taken hold, despite the fact that there are likely to be disappointments ahead regarding the benefits that new evidence-based strategies can actually provide.

Efforts to address the high achievement issue and the within-class issue, however, are not likely to emerge over the next five or ten years as significant priorities for preschool through higher education. One reason for this is that the low achievement of disadvantaged students remains a very pressing matter, one that understandably will command an enormous amount of attention for a long time. This will limit what is done on other aspects of the achievement gaps. Few leading academic researchers, school reformers, and policymakers have shown much interest in high achievement and within-class issues, and few seem to be presenting them to doctoral students as potential areas for research specialization. Yet another reason is that few grantmakers are organized to address these issues systematically with their grants

For all of these reasons, major work will begin only when the high achievement and within-class issues reach true crisis proportions in many people's minds. If relatively little progress has been made within the next decade, the growth of the percentage of the underrepresented minority share of the population may finally force these issues close to the center of the stage.

Researchers should continue to press for greater and more empirical attention to these matters, with the full understanding that our considerable impatience about the slow response to them is irrelevant to how quickly they actually will emerge. Pressing for change is not the same thing as actually being able to "demand" it. So, the nudging process goes on.

References

Anderson, J. D. (1988). *The education of Blacks in the South: 1860-1935*. Chapel Hill, NC: University of North Carolina Press.

Arenson, K. W. (2003a, October 9). New York to lower the bar for high school graduation. *The New York Times*.

Arenson, K.W. (2003b, October 14). Scaling back changes on Regents standards. *The New York Times*.

Barth, P., Haycock, K., Jackson, H., Mora, K., Ruiz, P., Robinson, S., & Wilkins, A. (Eds.). (1999). *Dispelling the myth: High poverty schools exceeding expectations*. Washington, DC: The Education Trust. (ED 445 140)

Bensman, D. (1987). *Quality in the inner city: The story of the Central Park East Schools*. New York: Kramer Communications/Central Park East Schools.

Berends, M., Bodilly, S. J., & Kirby, S. N. (2002). *Facing the challenges of whole-school reform: New American Schools after a decade*. Santa Monica, CA: RAND. (ED 465 196)

Brownstein, R. (2002, October 27). School testing backlash in five governors' races. *Los Angeles Times*, A26.

Brady, R. C. (2003). *Can failing schools be fixed?* Washington, DC: Thomas B. Fordham Foundation.

Borman, G. D., Hewes, G. M., Overman, L. T., & Brown, S. (2002). *Comprehensive school reform and student achievement: A meta-analysis*. Baltimore, MD: Johns Hopkins University, Center for Research on the Education of Students Placed At Risk. (ED 472 569)

Borman, G. D., Stringfield, S. C., & Rachuba, L. (1999). *Advancing minority high achievement: National trends and promising programs and practices*. A report prepared for the National Task Force on Minority High Achievement. New York: The College Board. (ED 438 380)

Bowen, W. G. and D. Bok (1998). *The shape of the river: Long-Term consequences of considering race in college and university admissions*. Princeton, NJ: Princeton University Press. (ED 425 686)

Braswell, J. S.; Lutkus, A. D.; Grigg, W. S.; Santapau, S. L.; Tay-Lim, B., & Johnson, M. (2001). *The nation's report card: Mathematics 2000*. Washington, DC: U.S. Department of Education, National Center for Education Statistics. (ED 453 086)

Building Engineering and Science Talent (2003). *Gateways of higher education into America's scientific and technological workforce*. San Diego, CA: Author.

Carnine, D. (2000). *Why education experts resist effective practices*. Washington, DC: Thomas B. Fordham Foundation. (ED 442 084)

Carter, S. G. (2000). *No excuses: Lessons from 21 high-performing, high-poverty schools*. Washington, DC: Heritage Foundation. (ED 440 170)

Coalition for Evidence-Based Policy. (2002). *Bringing evidence-driven progress to education: A recommended strategy for the U.S. Department of Education*. Washington, DC: Author.

Cole, S., & E. Barber. (2003). *Increasing faculty diversity: The occupational choices of high-achieving students*. Cambridge, MA: Harvard University Press.

Coley, R. J. (2002). *An uneven start: Indicators of inequality in school readiness. Policy information report*. Princeton, NJ: Educational Testing Service. (ED 466 473)

Coleman, J.S., Campbell, E.Q., Hobson, C.J., McPartland, J., Mood, A.M., Weinfeld, F.D., & York, L.R. (1966). *Equality of educational opportunity*. Washington, DC: U.S. Government Printing Office. (ED 012 275)

College Board (1999). *Reaching the top: A report of the National Task Force on Minority High Achievement*. New York: Author. (ED 435 765)

College Board (2000a). *1988 College Bound Seniors (Recentered): Ethnic and Gender Profile of SAT and Achievement Test Takers for the Nation*. New York: Author

College Board (2000b). *2000 College Bound Seniors: Ethnic and Gender Profile of SAT and Achievement Test Takers for the Nation* (New York: College Board).

College Board. (2002). *National AP grade distribution by total and ethnic groups for May 2003 administration*. New York: Author.

Edmonds, R. (1979). Effective schools and the urban poor. *Educational Leadership, 37(1)*, 15-24. (EJ 208 051)

Ferguson, R. F. (2002). *What doesn't meet the eye: Understanding and addressing racial disparities in high-achieving suburban schools*. Cambridge, MA: Harvard University, John F. Kennedy School of Government. (ED 474 390)

Fordham, S. & Ogbu, J. (1986). Black students' school success: Coping with the burden of acting White. *Urban Review, 18*, 176-206. (EJ 350 277)

BEST COPY AVAILABLE

Fuchs, L. (1990). *The American kaleidoscope: Race, ethnicity, and the civic culture.* Hanover, NH: Wesleyan University Press/University Press of New England.

Gandara, P. (with Maxwell-Jolly, J.). (1999). *Priming the pump: Strategies for increasing the achievement of underrepresented minority undergraduates.* New York: National Task Force on Minority High Achievement, The College Board.

Gandara, P. (with Bial, D.). (2001). *Paving the way to postsecondary education: K-12 intervention programs for underrepresented youth.* Wash ngton, DC: National Postsecondary Education Cooperative Working Group on Access to Postsecondary Education, U.S. Department of Education. (ED 458 340)

Gordon, E. at al. (1986). *A descriptive analysis of programs and trends in engineering and science education for ethnic minority students: A report to the field.* New Haven. CT: Institution for Social and Policy Studies, Yale University. (ED 284 919)

Grigg, W. S., Daane, M. C., Jin, Y., & Campbell, J. R. (2003). *The nation's report card: Reading 2002.* Washington, DC: U.S. Department of Education, National Center for Education Statistics. (ED 471 794)

Haynes, N., Emmons, C., & Woodruff, D. (1998). School development program effects: linking implementation to outcomes. *Journal of Education for Students Placed at Risk, 3*(1), 71-86. (EJ 564 743)

Herman, R. (Ed.). (1999). *An educators' guide to schoolwide reform.* Washington, DC: American Institutes for Research. (ED 460 429)

Hirsch, E. D. (1996). *The schools we need & why we don't have them.* New York: Doubleday.

Horn, L., Peter, K., & Rooney, K. (2002). *Profile of undergraduates in U.S. postsecondary educational institutions: 1999-2000. Statistical Analysis Report.* Washington, DC: U.S. Department of Education, National Center for Education Statistics. (ED 468 124)

Klitgaard, R. (1985). *Choosing elites.* New York: Basic Books. (ED 264 818)

Lowell, B. L., & Suro, R. (2002). *The improving educational profile of Latino immigrants.* Washington, DC: Pew Hispanic Center. (ED 471 517)

Lusterman, S. (1979). *Minorities in engineering: The corporate role.* New York: The Conference Board.

Miller, L. S. (1995). *An American imperative: Accelerating minority educational advancement.* New Haven, CT: Yale University Press. (ED 413 387)

Miller, L. S. (1999). Promoting high academic achievement among Non-Asian minorities. In E. Y. Lowe, Jr. (Ed.), *Promise and dilemma: Perspectives on racial diversity and higher education* (pp.47-91). Princeton, NJ: Princeton, University Press. (ED 435 291)

Myers, D. E. (1986). The relationship between school poverty concentration and students' reading and math achievement and learning. In M. M. Kennedy, R. K. Jung, & M. E. Orland (Eds.), *Poverty, achievement and the distribution of compensatory education services* (Appendix D). Washington, DC: U.S. Department of Education, U.S. Government Printing Office. (ED 271 546)

National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Bethesda, MD: National Institute of Child Health and Human Development.

National Research Council. (2002). *Scientific research in education*. Committee on Scientific Principles for Education Research. R. J. Shavelson, & L. Towne (Eds.). Washington, DC: National Academy Press. (ED 468 037)

Ogbu, J. U. (2003). *Black American students in an affluent suburb: A study of academic disengagement*. New Jersey: Lawrence Erlbaum. (ED 476 118)

Planning Commission for Expanding Minority Opportunities in Engineering. (1974). *Minorities in engineering: A blueprint for action*. New York: American Society for Engineering Education. (ED 104 183)

Phillips, M., Crouse, J., & Ralph, J. (1998). Does the black-white test score gap widen after children enter school? In C. Jencks & M. Phillips (Eds.), *The black-white test score gap* (pp. 229-272). Washington, DC: Brookings Institution Press. (ED 423 765)

Proctor, B. D., & Dalaker, J. (2003). *Poverty in the United States: 2002* (Current Population Reports, P60-222). Washington, DC: U.S. Census Bureau.

Ramist, L., Lewis, C., & McCamley-Jenkins, L. (1993). *Student group differences in predicting college grades: Sex, language and ethnic groups*. New York: The College Board.

Schoenfeld, A. H. (2002). Making mathematics work for all children: Issues of standards, testing, and equity. *Educational Researcher, 31* (3),13-25. (EJ 642 336)

Schweinhart, L. J., &. Koshel, J. J. (1986). *Policy options for preschool programs. High/Scope early childhood policy papers, no.* 5. Ypsilanti, Michigan: High/Scope Educational Research Foundation. (ED 276 515)

Slavin, R. E., & Madden, N. A. (2001). *One million children: Success for all.* Thousand Oaks, CA: Corwin. (ED 448 260)

Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist, 52* (6), 613-29. (EJ 578 749)

U.S. Census Bureau. (1964). *Current Population Reports, Series P-20.* Washington, DC: U.S. Government Printing Office.

U.S. Census Bureau. (2000). *Current Population Survey.* Washington, DC: U.S. Government Printing Office.

VandeHei, J. (2003, October 13). Education law may hurt Bush. *The Washinton Post*, p. A01.

Vernez, G., & Krop, R. (1999). *Projected social context for education of children: 1990-2015.* New York: National Task Force on Minority High Achievement, The College Board. (ED 447 236)

Weber, G. (1971). *Inner city children can be taught to read: Four successful schools.* CBE Occasional Papers, Number 18. Washington, DC: Council for Aid to Education. (ED 057 125)

Weikart, D. P. (1989). *Quality preschool programs: A long-term social investment. Occasional paper Number 5.* Ford Foundation Project on Social Welfare and the American Future. New York: The Ford Foundation. (ED 312 033)

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